

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
REGION 9, SAN DIEGO REGION**

**TENTATIVE ORDER NO. R9-2005-0139  
NPDES NO. CA0109215**

**WASTE DISCHARGE REQUIREMENTS FOR THE  
CITY OF ESCONDIDO, INDUSTRIAL BRINE COLLECTION SYSTEM  
DISCHARGE TO THE PACIFIC OCEAN VIA THE SAN ELIJO OCEAN OUTFALL**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 1. Discharger Information.**

<b>Discharger</b>	<b>City of Escondido</b>
<b>Name of Facility</b>	<b>Industrial Brine Collection System</b>
<b>Facility Address</b>	<b>1521 S. Hale Avenue Escondido, CA 92029 San Diego County</b>

The discharge to the City of Escondido's Industrial Brine Collection System (IBCS) from discharge points identified below is subject to waste discharge requirements as set forth in this Order.

**Table 2. Discharge Locations.**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Discharge Point Latitude</b>	<b>Discharge Point Longitude</b>	<b>Receiving Water</b>
I-001	PEP Wastewater Collection and Transfer Sump for Low Volume Wastes	--	--	Internal Discharge Location
I-002	PEP Cooling Tower Blowdown	--	--	Internal Discharge Location
I-003	Iceoplex Low Volume Waste	--	--	Internal Discharge Location
I-004	Iceoplex Cooling Tower Blowdown	--	--	Internal Discharge Location
C-001	IBCS combined effluent (saline wastewaters)	33° 00' 21" N	117° 18' 09" W	Pacific Ocean

PEP – Palomar Energy Project

IBCS – Industrial Brine Collection System

**Table 3. Order Information.**

This Order was adopted by the Regional Water Board on:	<b>September 14, 2005</b>
This Order shall become effective on:	<b>September 24, 2005</b>
This Order shall expire on:	<b>September 14, 2010</b>
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a major discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, <b><u>not later than December 10, 2009</u></b> as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

*I, John H. Robertus, Executive Officer, do hereby certify that this Order is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on September 14, 2005.*

\_\_\_\_\_  
TENTATIVE

JOHN H. ROBERTUS  
Executive Officer

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REGION 9, SAN DIEGO REGION**

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## I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order.

**Table 4. Facility Information.**

<b>Discharger</b>	<b>City of Escondido</b>
<b>Name of Facility</b>	<b>Industrial Brine Collection System</b>
<b>Facility Address</b>	<b>1521 S. Hale Avenue Escondido, CA 92029 San Diego County</b>
<b>Facility Contact, Title, and Phone</b>	<b>Patrick A. Thomas, Director of Public Works, (760) 839-4651</b>
<b>Mailing Address</b>	<b>201 N. Broadway, Escondido, CA 92025</b>
<b>Type of Facility</b>	<b>Industrial brine collection system</b>
<b>Facility Design Flow</b>	<b>1.5 million gallons per day</b>

## II. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Water Board), finds:

- A. Background.** The City of Escondido (hereinafter “City”) submitted a Report of Waste Discharge, dated October 25, 2005, and applied for a National Pollutant Discharge Elimination System (NPDES) permit to discharge up to 1.5 million gallons per day (mgd) of untreated brine wastewater from the City’s Industrial Brine Collection System.
- B. Facility Description.** In order to minimize the discharge of salts to the sanitary sewer system, the City has constructed an Industrial Brine Collection System (IBCS). The City owns and operates the IBCS. The City proposes to allow qualified City-regulated industrial dischargers to discharge certain industrial brine wastewaters into the IBCS. Brine wastewaters allowed into the IBCS would include:
1. Brine wastewater or blowdown from evaporative cooling processes, and
  2. Brine from reverse osmosis, water softener, and other types of water treatment processes.

Wastewater shall be discharged from Outfall No. C-001 (see table on cover page) to the Pacific Ocean, a water of the United States, via Escondido Land Outfall (ELO) and the San Elijo Ocean Outfall (SEOO). Attachment B provides a map of the area around the IBCS. Attachment C is a schematic illustrating how the effluent streams from the San Elijo Water Reclamation Facility, Hale Avenue Resource Recovery Facility, and the IBCS will contribute to the total SEOO discharge.

A dilution factor of 237:1 has been determined by this Regional Water Board for the SEOO. Modeling criteria used to determine the dilution factor are summarized in Attachment G.

- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from the IBCS to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC.
- D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application. Attachments A through I, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and constitute part of the Findings for this Order.
- E. **California Environmental Quality Act (CEQA).** New sources as defined by the CWA must meet CEQA requirements specified in CWC 13389. This Regional Water Board has considered the environmental impact report (EIR) and concurs that there are no significant impacts on water quality and all CEQA requirements have been met. The City filed a Notice of Determination on February 27, 2003.
- F. **Technology-Based Effluent Limitations.** Section 122.44(a) of 40 CFR requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category in 40 CFR Part 423. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- G. **Water Quality-Based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBEL) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR 122.44(d) specifies that WQBEL may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.
- H. **Water Quality Control Plans.** This Regional Water Board adopted a *Water Quality Control Plan for the San Diego Region* (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (State Water Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Water Board and approved by the State Water Board. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters

addressed through the plan. Beneficial uses applicable to the Pacific Ocean are listed in *Table 5. Basin Plan Beneficial Uses of the Pacific Ocean.*

**Table 5. Basin Plan Beneficial Uses of the Pacific Ocean**

Outfall Number	Receiving Water Name	Beneficial Use(s)
C-001	Pacific Ocean	<p><u>Existing:</u></p> <p>Industrial Service Supply (IND); Navigation (NAV); Contact Water Recreation (REC-1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Preservation of Biological Habitats of Special Significance (BIOL); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Marine Habitat (MAR); Aquaculture (AQUA); Migration of Aquatic Organisms (MIRG); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)</p>

The Basin Plan relies primarily on the requirements of the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) for protection of the beneficial uses of the state ocean waters. The Basin Plan, however, may contain additional water quality objectives applicable to the discharger.

On November 16, 2000 the State Water Board adopted a revised Ocean Plan. The revised Ocean Plan became effective on December 3, 2001. The Ocean Plan contains water quality objectives and beneficial uses for the ocean waters of California. The beneficial uses of State ocean waters to be protected are summarized in *Table 6. Ocean Plan Beneficial Uses of the Pacific Ocean.*

**Table 6. Ocean Plan Beneficial Uses of the Pacific Ocean**

Outfall Number	Receiving Water Name	Beneficial Use(s)
C-001	Pacific Ocean	<p>Industrial Water Supply; Water Contact and Non-Contact Recreation, Including Aesthetic Enjoyment; Navigation; Commercial and Sport Fishing; Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species; Marine Habitat; Fish Migration; Fish Spawning and Shellfish Harvesting</p>

In order to protect these beneficial uses, the Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of*

*California* (Thermal Plan) on May 18, 1972, and amended it on September 18, 1975. The Thermal Plan contains temperature objectives for coastal waters.

The terms and conditions of the Ocean Plan, Thermal Plan, and any revisions thereto are incorporated into the Basin Plan by reference. In addition, State Water Board Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. **Antidegradation Policy.** 40 CFR 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) a discharge in compliance with this Order is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- J. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued Order to be as stringent as those in the previous Order, with some exceptions where limitations may be relaxed. No effluent limitations have been established for this discharge prior to this Order.
- K. **Monitoring and Reporting.** 40 CFR 122.48 requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.

Additional monitoring and reporting requirements have been established to evaluate the IBCS effluent quality for priority pollutants and determine if the new discharge meets water quality objectives and limitations established in Table B of the Ocean Plan.
- L. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR 122.41 and 122.42, apply to all NPDES discharges are provided in Attachment D. This Regional Water Board has also included in this Order special provisions applicable to the Discharger. A detailed rationale for the special provisions contained in this Order is provided in the Fact Sheet (Attachment F).
- M. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA

purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

- N. **Notification of Interested Parties.** This Regional Water Board has notified the City and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F).
- O. **Consideration of Public Comment.** This Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F).

### III. DISCHARGE PROHIBITIONS

- A. Compliance with Discharge Prohibitions contained in Section III.H of the Ocean Plan is a requirement of this Order.
- B. Compliance with applicable Discharge Prohibitions contained in the Basin Plan is a requirement of this Order.
- C. Discharges of wastes in a manner or to a location which have not been specifically authorized by this Order and for which valid waste discharge requirements are not in force are prohibited.
- D. The discharge of wastewater at a rate exceeding 1.4 mgd during Phase I of IBCS operation; 1.5 mgd during Phase II of IBCS operation; or any rate that when combined with the effluent discharge rate from HARRF contributes to an exceedance of 18 mgd, is prohibited unless the City obtains revised waste discharge requirements authorizing an increased discharge.
- E. The discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid at Internal Discharge Points I-001 through I-004 is prohibited.
- F. Neither free available chlorine nor total residual chlorine may be discharged from any power generating unit contributing to cooling tower blowdown effluent at Internal Discharge Points I-002 and I-004 for more than 2 hours in any one day and not more than one unit in any power generating facility may discharge free available or total residual chlorine at any one time.
- G. The discharge of wastewater from the IBCS, that when combined with the effluent discharged from HARRF, contributes to an exceedance of the Thermal Plan and the temperature effluent limitation established in Section IV.B of this Order is prohibited.

- H. Odors, vectors, and other nuisances of waste origin beyond the limits of the property controlled by the Discharger are prohibited.

#### **IV. DISCHARGE SPECIFICATIONS AND EFFLUENT LIMITATIONS**

##### **A. Discharge Specifications**

The discharge of effluent through Combined Discharge Point 001 (C-001) shall comply with the following:

1. Waste management systems that discharge to the Pacific Ocean through C-001 must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.
2. Waste discharged to the Pacific Ocean through C-001 must be essentially free of:
  - a. Material that is floatable or will become floatable upon discharge.
  - b. Settleable material or substances that may form sediments, which will degrade benthic communities or other aquatic life.
  - c. Substances, which will accumulate to toxic levels in marine waters, sediments, or biota.
  - d. Substances that significantly decrease the natural light to benthic communities and other marine life.
  - e. Materials that result in aesthetically undesirable discoloration of the ocean surface.
3. Waste effluents shall be discharged through C-001 in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in treatment.
4. The location of waste discharges from the IBCS shall assure that:
  - a. Pathogenic organisms and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body contact sports.
  - b. Natural water quality conditions are not altered in areas designated as being Areas of Special Biological Significance or areas that existing marine laboratories use as a source of seawater.
  - c. Maximum protection is provided to the marine environment.

5. Waste that contains pathogenic organisms or viruses shall be discharged from the IBCS through C-001 a sufficient distance from shellfishing and water contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard shall be used.
6. The discharge of effluent shall not result in the increase in the natural water temperature exceeding 4 °F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system.
7. The discharge of effluent shall not effect the natural temperature of designated Areas of Special Biological Significance.
8. The Discharger shall not cause pollution, contamination, or nuisance, as those terms are defined in CWC 13050, as a result of the treatment or discharge of wastes.
9. Collected screenings, sludges, and other solids removed from liquid wastes, shall be disposed of in a manner approved by this Regional Water Board.
10. The IBCS monthly average effluent flow rate is not to exceed 1.5 million gallons per day (mgd).

#### **B. Effluent Limitations**

The discharge of effluent to the IBCS shall be measured at monitoring locations as described in the Monitoring and Reporting Program (Attachment E), except as otherwise noted. The discharge of effluent to the IBCS and from C-001 shall maintain compliance with the following:

The discharge of low volume wastes from the PEP facility to the IBCS shall maintain compliance with the effluent limitations listed in *Table 7. Effluent Limitations for Low Volume Wastes (DischargePoint I-001)*.

**Table 7. Effluent Limitations for Low Volume Wastes (Discharge Point I-001).**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30 <sup>2</sup>	100	--	--
	lbs/day <sup>1</sup>	80.1 <sup>2</sup>	266.9	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day <sup>1</sup>	43.8	53.4	--	--

<sup>1</sup> Mass-based effluent limitations have been established based on a maximum effluent flow of 0.32 mgd.

<sup>2</sup> If the HAARF reclaimed water has high levels of TSS, the effluent limitation for low volume wastes will be adjusted as noted in *Table 8. Adjusted Effluent Limitations for Low Volume Wastes (Discharge Point I-001)* of this Order. To receive the adjusted effluent limitations the Discharger must provide monitoring data demonstrating that the TSS in the source water for PEP was greater than 5 mg/L.

Effluent limitations for the TSS in the Low Volume wastes are adjusted to the effluent limitations listed in *Table 8. Adjusted Effluent Limitations for Low Volume Wastes (Discharge Point I-001)* when the Discharger demonstrates that the source water has a concentration greater than 17.6 mg/L for TSS.

**Table 8. Adjusted Effluent Limitations for Low Volume Wastes (Discharge Point I-001).**

HAARF Reclaimed Water TSS Concentration (mg/L)	Intake Credit (mg/L)	Adjusted ELG-based Average Monthly Effluent Limitation <sup>1</sup>
0 to 17.6	0	30 mg/L
		80.1 lbs/day
17.6 to 20	3.8	33.8 mg/L
		90.2 lbs/day
20.1 to 25	12.3	42.3 mg/L
		112.9 lbs/day
25.1 to 30	20.7	50.7 mg/L
		135.3 lbs/day
30.1 to 35	29.2	59.2 mg/L
		158.0 lbs/day
35.1 to 40	37.6	67.6 mg/L
		180.4 lbs/day
40.1 to 45	46.1	76.1 mg/L
		203.1 lbs/day

<sup>1</sup> Mass-based effluent limitations have been established based on a maximum effluent flow of 0.25 mgd.

The discharge of cooling tower blowdown from the PEP facility to the IBCS shall maintain compliance with the effluent limitations listed in *Table 9. Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-002)*.

**Table 9. Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-002).**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 <sup>1</sup>
	lbs/day <sup>2</sup>	--	--	--	5.8
Chromium, total <sup>3,4</sup>	mg/L	0.2	0.2	--	--
	lbs/day <sup>2</sup>	2.3	2.3	--	--
Zinc, total <sup>3,4</sup>	mg/L	1.0	1.0	--	--
	lbs/day <sup>2</sup>	11.6	11.6	--	--
Remaining priority pollutants <sup>4</sup>	ug/L	ND <sup>5</sup>	--	--	ND <sup>4</sup>

<sup>1</sup> The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

<sup>2</sup> Mass-based effluent limitations have been established based on a maximum effluent flow of 1.4 mgd.

<sup>3</sup> The effluent limitations for metals are expressed as total recoverable.

<sup>4</sup> Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants in chemicals added for cooling tower maintenance.

<sup>5</sup> Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

The discharge of low volume wastes from the Iceoplex cogeneration facility to the IBCS shall maintain compliance with the effluent limitations listed in *Table 10. Effluent Limitations for Low Volume Waster (Discharge Point I-003)*.

**Table 10. Effluent Limitations for Low Volume Waste (Discharge Point I-003).**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30	100	--	--
	lbs/day	5.7	19	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day	2.8	3.8	--	--

<sup>1</sup> Mass-based effluent limitations have been established based on a maximum effluent flow of 0.0228 mgd.

The discharge of cooling tower blowdown from the Iceoplex cogeneration facility to the IBCS shall maintain compliance with the effluent limitations listed in *Table 11. Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-004)*.

**Table 11. Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-004).**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 <sup>1</sup>
	lbs/day <sup>2</sup>	--	--	--	0.2
Chromium, total <sup>3,4</sup>	mg/L	0.2	0.2	--	--
	lbs/day <sup>2</sup>	0.1	0.1	--	--
Zinc, total <sup>3,4</sup>	mg/L	1.0	1.0	--	--
	lbs/day <sup>2</sup>	0.4	0.4	--	--
Remaining priority pollutants <sup>4</sup>	ug/L	ND <sup>5</sup>	--	--	ND <sup>4</sup>

<sup>1</sup>The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

<sup>2</sup> Mass-based effluent limitations have been established based on a maximum effluent flow of 29,400 gpd.

<sup>3</sup> The effluent limitations for metals are expressed as total recoverable.

<sup>4</sup> Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants added for cooling tower maintenance.

<sup>5</sup> Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

The discharge of IBCS effluent during Phase I operation of the IBCS shall maintain compliance with the effluent limitations listed in *Table 12. Phase I - Effluent Limitations for IBCS (Discharge Point C-001)*.

**Table 12. Phase I - Effluent Limitations for IBCS (Discharge Point C-001).**

Parameter	Units	Effluent Limitations					
		6-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Temperature	°F	<sup>1</sup>					
pH	units	--	--	--	--	6.0	9.0
Oil and Grease	mg/L	--	25	40	--	--	75
	lbs/day <sup>2</sup>	--	292	467	--	--	876
Turbidity	NTU	--	75	100	--	--	225
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0
Suspended Solids	mg/L	--	--	--	--	--	60
	lbs/day <sup>2</sup>	--	--	--	--	--	701
Total Chlorine Residual	mg/L	0.48	--	--	1.9	--	14.3
	lbs/day <sup>2</sup>	5.6	--	--	22.2	--	167
Chronic Toxicity <sup>3</sup>	TUc	--	--	--	238	--	--

<sup>1</sup>The maximum temperature of the effluent shall not exceed the natural temperature of receiving waters by more than 20 °F at any time.

<sup>2</sup> Mass-based effluent limitations have been calculated based on a maximum daily flow of 1.4 MGD. These mass-based effluent limitations are applicable during the Phase I operation of the IBCS.

<sup>3</sup> Compliance with the effluent limitation for chronic toxicity shall be determined as specified in Section VII.J of this Order.

The discharge of IBCS effluent during Phase II operation of the IBCS shall maintain compliance with the effluent limitations listed in *Table 13. Phase II - Effluent Limitations for IBCS (Combined Discharge Point C-001)*.

**Table 13. Phase II - Effluent Limitations for IBCS (Discharge Point C-001).**

Parameter	Units	Effluent Limitations					
		6-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Temperature	°F	<sup>1</sup>					
pH	units	--	--	--	--	6.0	9.0
Oil and Grease	mg/L	--	25	40	--	--	75
	lbs/day <sup>2</sup>	--	313	500	--	--	939
Turbidity	NTU	--	75	100	--	--	225
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0
Suspended Solids	mg/L	--	--	--	--	--	60
	lbs/day <sup>2</sup>	--	--	--	--	--	751
Total Chlorine Residual	mg/L	0.48	--	--	1.9	--	14.3
	lbs/day <sup>2</sup>	6	--	--	23.8	--	179
Chronic Toxicity <sup>3</sup>	TUc	--	--	--	238	--	--

<sup>1</sup> The maximum temperature of the effluent shall not exceed the natural temperature of receiving waters by more than 20 °F at any time.

<sup>2</sup> Mass-based effluent limitations have been calculated based on a maximum daily flow of 1.5 MGD. These mass-based effluent limitations are applicable during the Phase II operation of the IBCS.

<sup>3</sup> Compliance with the effluent limitation for chronic toxicity shall be determined as specified in Section VII.J of this Order.

## V. RECEIVING WATER LIMITATIONS

Unless specifically excepted by this Order, the discharge, by itself or jointly with any other discharge(s), shall not cause violation of the following water quality objectives. Compliance with these objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed.

### A. Bacterial Characteristics

1. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board, but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.
  - a. Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed

1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

- b. The fecal coliform density, based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.
2. The Initial Dilution Zone for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.
3. At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70 per 100 ml throughout the water column, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

#### **B. Physical Characteristics**

1. Floating particulates and grease and oil shall not be visible.
2. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
5. The temperature of the receiving water shall not be altered or the water quality degraded due to the temperature of the discharge of waste.

#### **C. Chemical Characteristics**

1. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.
2. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
3. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.

4. The concentration of substances set forth in Chapter II, Table B of the Ocean Plan (2001), shall not be increased in marine sediments to levels that would degrade indigenous biota.
5. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.
6. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.
7. Numerical water quality objectives established in Chapter II, Table B of the California Ocean Plan (2001) shall not be exceeded outside of the zone of initial dilution as a result of discharges from the Hale Avenue Resource Recovery Facility.

#### **D. Biological Characteristics**

1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
2. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
3. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

#### **E. Toxic Materials**

Upon completion of initial dilution, the discharge of waste through C-001 shall not by itself or jointly with any other discharge, cause water quality objectives found in Table B of the Ocean Plan (2001) to be exceeded in the receiving water, except that limitations indicated for radioactivity shall apply directly to the undiluted waste effluent.

#### **F. Radioactivity**

Discharge of radioactive waste shall not degrade marine life.

### **VI. PROVISIONS**

#### **A. Standard Provisions**

1. **Federal Standard Provisions.** The City shall comply with all Standard Provisions included in Attachment D.
2. **Regional Water Board Standard Provisions.** The City shall comply with the following provisions:

- a. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
- b. Upon application by any affected person, or on its own motion, the Regional Water Board may review and revise this Order.
- c. The City shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- d. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the CWA.

Nothing in this Order shall protect the City from its liabilities under federal, State, or local laws. Except as provided for in 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the City from civil or criminal penalties for noncompliance.

Nothing in this Order shall preclude the institution of any legal action or relieve the City from any responsibilities, liabilities, or penalties to which the City is or may be subject to under Section 311 of the CWA.

Nothing in this Order shall preclude institution of any legal action or relieve the City from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authoring preserved by Section 510 of the CWA.

- e. Any noncompliance with this Order is a violation of the California Water Code and/or the federal Clean Water Act and is grounds for denial of an application for Order modification.
- f. No discharge of waste into waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.
- g. For the purposes of this Order, the term "permittee" used in parts of 40 CFR incorporated into this Order by reference and/or applicable to this Order shall have the same meaning as the term "Discharger" used elsewhere in this Order.
- h. This Order expires on June 8, 2010, after which, the terms and conditions of this permit are automatically continued pending issuance of a new Order, provided

that all requirements of USEPA's NPDES regulations at 40 CFR 122.6 and the State's regulations at CCR Title 23, Section 2235.4 regarding the continuation of expired Orders and waste discharge requirements are met.

- i. Any application submitted by the City for reissuance or modification of this Order shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the California Water Code and the California Code of Regulations.
- j. Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this permit will be considered confidential, and all such information and documents shall be available for review by the public at the office of the Regional Water Board.
- k. The City shall conduct appropriate analyses on any sample provided by USEPA as part of the discharge monitoring quality assurance (DMQA) program. The results of such analyses shall be submitted to USEPA's DMQA manager.
- l. The handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the state in a manner, which causes or threatens to cause a condition of pollution, contamination, or nuisance, as those terms are defined in CWC 13050, is prohibited.
- m. The City shall comply with any interim effluent limitations as established by addendum, enforcement action or revised waste discharge requirements, which have been or may be adopted by this Regional Water Board.
- n. A copy of this Order shall be maintained on-site at the HARRF, and shall be available to operating personnel at all times.
- o. This Order does not apply to discharges of radioactive materials regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).

## **B. Monitoring and Reporting Program Requirements**

1. The City shall comply with the Monitoring and Reporting Program (Attachment E), and future revisions thereto.
2. Reports required to be submitted to this Regional Water Board shall be sent to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340

Notifications required to be provided to this Regional Water Board shall be made to:

Telephone - (858) 467-2952  
Facsimile - (858) 571-6972

3. After notification by the State or Regional Water Board, the City may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self monitoring reports is required, the City shall submit discharge monitoring reports (DMRs) in accordance with the requirements described further below.

DMRs must be signed and certified as required by the standard provisions (Attachment D). The City shall submit the original DMR and one copy to:

State Water Resources Control Board  
Discharge Monitoring Report Processing Center  
Post Office Box 671  
Sacramento, CA 95812

All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self generated or modified cannot be accepted.

### **C. Special Provisions**

1. Re-opener Provisions
  - a. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
    - 1) Violation of any terms or conditions of this Order.
    - 2) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
    - 3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the City for modifications, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.

- b. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.
- c. This Order may be re-opened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- d. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new Minimum Levels (ML).
- e. This Order may be re-opened and modified to revise effluent limitations as a result of future Basin Plan Amendments, or the adoption of a total maximum daily load allocation (TMDL) for the receiving water.
- f. This Order may be re-opened upon submission by the City of adequate information, as determined by this Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- g. This Order may be re-opened and modified to revise the toxicity language once that language becomes standardized.
- h. This Order may also be re-opened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order and permit, and endangerment to human health or the environment resulting from the permitted activity.

## 2. Special Studies, Technical Reports and Additional Monitoring Requirements

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for influent and effluent. In addition to core monitoring requirements, the City may be required to conduct additional monitoring. Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core monitoring program. The City shall implement special studies as directed by this Regional Water Board.

- a. The City shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program for the Pacific Ocean as directed by this Regional Water Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated sampling effort, the City's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the receiving water.
- b. This Regional Water Board is requiring the City to conduct effluent monitoring for the priority pollutants as listed in Attachment H.

This monitoring shall be conducted at the following locations:

- 1) Effluent Outfall for IBCS (Outfall No. C-001).

The City shall conduct two priority pollutant monitoring studies as specified in Attachment H. The first monitoring study shall be conducted quarterly for the first year of facility operation (four monitoring events). The results of the quarterly priority pollutant monitoring shall be submitted to this Regional Water Board within 3 months of completing the fourth monitoring event, and no later than November 1, 2006. The second priority pollutant monitoring study requires the City to conduct priority pollutant monitoring approximately one year prior to the Order expiration date. The final priority pollutant monitoring event shall be conducted between March 1, 2009 and April 31, 2009 and include Phase II effluent if possible. The results of the second priority pollutant monitoring study shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

### 3. Best Management Practices and Pollution Prevention

The City must establish an industrial users evaluation and regulatory program which will establish discharge regulations, discharge prohibitions, and requirements under which industrial dischargers will be allowed to discharge to the IBCS.

### 4. Spill Prevention and Response Plans

- a. For purposes of this section, a spill is a discharge of brine wastewater that occurs at a location from the IBCS in violation of the Discharge Prohibitions of this Order. This section does not include sanitary sewer overflows reportable under separate waste discharge requirements.
- b. The City shall maintain a Spill Prevention Plan (SPP) for the IBCS and facilities owned and/or operated by the City in an up-to-date condition and shall amend the SPP whenever there is a change (e.g., in the design, construction, operation, or maintenance of the IBCS) which materially affects the potential for spills. The City shall review and amend the SPP as appropriate after each spill from the

IBCS. The SPP and any amendments thereto shall be subject to the approval of the Executive Officer and shall be modified as directed by the Executive Officer. The City shall submit the SPP and any amendments thereto to the Executive Officer upon request of the Executive Officer. The City shall ensure that the up-to-date SPP is readily available to the personnel at all times and that personnel are familiar with it.

- c. The City shall maintain a Spill Response Plan (SRP) for the IBCS in an up-to-date condition and shall amend the SRP, as necessary. The City shall review and amend the SRP as appropriate after each spill from the IBCS. The SRP and any amendments thereto shall be subject to the approval of the Executive Officer and shall be modified as directed by the Executive Officer. The City shall submit the SRP and any amendments thereto to the Executive Officer upon request of the Executive Officer. The City shall ensure that the up-to-date SRP is readily available to personnel at all times and that personnel are familiar with it.

#### 5. Spill Reporting Requirements

The City shall report spills as defined in Section VI.C.4.a above in accordance with the following procedures:

- a. If a spill results in a discharge of brine wastewater that is greater than 1,000 gallons that reaches surface waters, the City shall:
  - 1) Report the spill to the Regional Water Board by telephone, by voice mail, or by FAX within 24 hours from the time the Discharger becomes aware of the spill. The City shall inform the Regional Water Board of the date of the spill, spill location and its final destination, time the spill began and ended, estimated total spill volume, and type of spill material.
  - 2) Submit a written report, as well as any additional pertinent information, to the Regional Water Board no later than five days following the starting date of the spill event. The City shall submit the written report using the Sanitary Sewer Overflow Report Form (June 13, 2001) provided under Regional Water Board Order No. 96-04.
- b. If a spill results in a discharge of brine wastewater under 1,000 gallons and the discharge does not reach surface waters,
  - 1) The City is not required to notify the Regional Water Board within 24 hours.
  - 2) The City shall submit a written report, as well as any additional pertinent information, in the monthly self-monitoring report for the month in which the spill occurred. The City shall submit the written report using the Sanitary Sewer Overflow Report Form (June 13, 2001) provided under Regional Water Board Order No. 96-04.

- c. For spills of material other than brine wastewater that cause, may cause, or are caused by significant operational failure, or endangers or may endanger human health or the environment, the City shall notify the Regional Water Board by telephone, by voice mail, or by FAX within 24 hours from the time the City becomes aware of the spill. The City shall inform the Regional Water Board of the date of the spill, spill location and its final destination, time the spill began and ended, estimated total spill volume, and type of spill material.
  - d. For all spills, the City shall submit an annual summary containing the following information for each spill: date of spill, location of spill and its final destination, time the spill began and ended, estimated total spill volume, and type of spill material.
  - e. The spill reporting requirements contained in this Order do not relieve the City of responsibilities to report to other agencies, such as the Office of Emergency Services (OES) and the County of San Diego Department of Environmental Health Services.
6. Water Treatment Systems and Cooling Tower Additives Audit.

The Discharger is required to maintain a log at each power generating facility of all chemical additives added to the water treatment systems and cooling tower that are eventually discharged from the power generating facilities (PEP and Iceoplex Cogeneration) to the IBCS.

The log shall include a list of the chemicals used, the use of each chemical, the location of use of each chemical, and the approximate quantity of chemical used over a given time period.

A chemical additives audit which contains a list of all chemical additives used in the water treatment systems and cooling tower shall be submitted 30-days prior to connection to the IBCS and thereafter annually with the annual report required in Section VII.B.3 of the MRP.

The Regional Water Board must be notified in writing of any additional chemical additive not listed in the chemical additives audit within one business day of its use in the water treatment system or cooling tower. The notification shall include the name of the chemical additive, the reason for its use, and the approximate quantity to be used over a given time.

The Regional Water Board must be notified of any additive used for cooling tower maintenance that contains a priority pollutant listed in Attachment H of this Order a minimum of 24-hours prior to its use. The notification shall include the name of the chemical additive, the priority pollutant(s) it contains, the reason for its use, and the approximate quantity to be used over a given time.

Effluent limitations and monitoring are required by this Order when priority pollutants are added to the cooling tower.

## **VII. COMPLIANCE DETERMINATION**

Compliance with effluent limitations or discharge specifications shall be determined as follows:

### **A. Average Monthly Effluent Limitation (AMEL).**

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

### **B. Average Weekly Effluent Limitation (AWEL).**

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

### **C. Maximum Daily Effluent Limitation (MDEL).**

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

### **D. Instantaneous Minimum Effluent Limitation.**

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

**E. Instantaneous Maximum Effluent Limitation.**

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

**F. Six-month Median Effluent Limitation.**

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

**G. Mass and Concentration Limitations.**

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations.

**H. Ocean Plan Provisions for Table B Constituents.**

1. Sampling Reporting Protocols

- a. Dischargers must report with each sample result the reported Minimum Level (ML) and the laboratory's current Method Detection Limit (MDL).
- b. Dischargers must also report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:
  - 1) Sample results greater than or equal to the reported ML must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample).
  - 2) Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").
  - 3) Sample results less than the laboratory's MDL must be reported as "Not Detected", or ND.

2. Compliance Determination

Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation.

a. Compliance with Single-Constituent Effluent Limitations

The Discharger shall be deemed out of compliance with an effluent limitation or discharge specification if the concentration of the constituent in the monitoring sample is greater than the effluent limitation or discharge specification and greater than or equal to the ML.

b. Compliance with Effluent Limitations expressed as a Sum of Several Constituents

Dischargers are out of compliance with an effluent limitation that applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

c. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported ML). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

3. Pollutant Minimization Program

a. Pollutant Minimization Program Goal

The goal of the Pollutant Minimization Program is to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The completion and implementation of a Pollution Prevention Plan, required in accordance with CWC Section 13263.3 (d) will fulfill the Pollution Minimization Program requirements in this section.

b. Determining the need for a Pollutant Minimization Program

- 1) The Discharger must develop and conduct a Pollutant Minimization Program if all of the following conditions are true:
  - a) The calculated effluent limitation is less than the reported ML.
  - b) The concentration of the pollutant is reported as DNQ.
  - c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
- 2) Alternatively, the Discharger must develop and conduct a Pollutant Minimization Program if all of the following conditions are true:
  - a) The calculated effluent limitation is less than the Method Detection Limit.
  - b) The concentration of the pollutant is reported as ND.
  - c) There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
- c. Regional Water Board may include special provisions in the discharge requirements to require the gathering of evidence to determine whether the pollutant is present in the effluent at levels above the calculated effluent limitation. Examples of evidence may include:
  - 1) Health advisories for fish consumption,
  - 2) Presence of whole effluent toxicity,
  - 3) Results of benthic or aquatic organism tissue sampling,
  - 4) Sample results from analytical methods more sensitive than methods included in the permit.
  - 5) The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL

**I. Receiving Water Sampling Protocol.**

The instantaneous maximum and daily maximum receiving water limitations shall apply to grab sample determinations.

**J. Chronic Toxicity.**

Chronic toxicity is used to measure the acceptability of waters for supporting a healthy marine biota until approved methods are developed to evaluate biological response. Compliance with the Chronic Toxicity effluent limitation established in Section IV.B of this Order for Outfall C-001 shall be determined using critical life stage toxicity tests in accordance with procedures prescribed by the Ocean Plan (2001) and restated in the

MRP (Attachment E). Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

$$\text{TUc} = 100 / \text{NOEL}$$

where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test

If the toxicity testing result shows an exceedance of the chronic toxicity limitation identified in the effluent limitations for Outfall C-001 (Section IV.B of this Order), the Discharger shall:

1. Take all reasonable measures necessary to immediately minimize toxicity; and
2. Increase the frequency of the toxicity test(s) that showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

If the Executive Order determines that toxicity testing shows consistent violation or exceedance of the chronic toxicity limitation identified in Section IV.B of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) that includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in the final effluent limitations for Outfall C-001 (Section IV.B of this Order).

**K. Toxicity Reduction Evaluation (TRE)**

The Discharger shall develop a Toxicity Reduction Evaluation (TRE) workplan in accordance with the TRE procedures established by the USEPA in the following guidance manuals:

1. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070).
2. Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F).
3. Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080).
4. Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081).

The Discharger shall submit the TRE workplan to the Regional Water Board within 180 days of the adoption of this Order. The TRE workplan shall be subject to the approval of the Regional Water Board and shall be modified as directed by the Regional Water Board.

If toxicity effluent limitations identified in Section IV.B of this Order are exceeded, then within 15 days of the exceedance, the Discharger shall begin conducting six additional toxicity tests over a 6-month (at least one sample per calendar month, for a total of two samples per calendar month) period and provide the results to the Regional Water Board. The additional monthly toxicity tests will be incorporated into the semiannual discharge monitoring reports submitted pursuant to the MRP (Attachment E).

If the additional monthly tests indicate that toxicity effluent limitations are being consistently violated (at least three exceedances out of the six tests), the Regional Water Board may recommend that the Discharger conduct a TRE and a Toxic Identification Evaluation (TIE), as identified in the approved TRE workplan.

Within fifteen days of completion of the TRE/TIE, the Discharger shall submit the results of the TRE/TIE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitation of this Order and prevent recurrence of violations of those limitation, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Executive Officer.

**L. Mass Emission Rate.**

The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

$$\text{Mass Emission Rate (lb/Day)} = 8.34 \times Q \times C$$

in which Q and C are the flow rate in MGallons/Day and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor. If a composite sample is taken, then C is the concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited.

**M. Single Operational Upset.**

A single operational upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A single operational upset is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision E.5.b(2) of Attachment D - Standard Provisions.
3. For purposes outside of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting

violations) shall be in accordance with the USEPA Memorandum “Issuance of Guidance Interpreting Single Operational Upset” (September 27, 1989).

4. For purposes of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC Section 13385 (f)(2).